

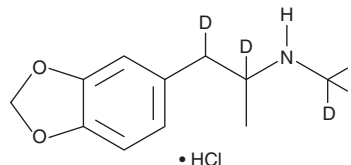
# PRODUCT INFORMATION



## 3,4-MDMA-d<sub>5</sub> (hydrochloride)

Item No. 18573

**CAS Registry No.:** 2747917-97-9  
**Formal Name:** α-methyl-N-(methyl-d<sub>3</sub>)-1,3-benzodioxole-5-ethan-α,β-d<sub>2</sub>-amine, monohydrochloride  
**Synonym:** 3,4-Methylenedioxymethylamphetamine-d<sub>5</sub>  
**MF:** C<sub>11</sub>H<sub>10</sub>D<sub>5</sub>NO<sub>2</sub> • HCl  
**FW:** 234.7  
**Purity:** ≥98%  
**Supplied as:** A neat solid  
**Storage:** -20°C  
**Stability:** ≥5 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Description

3,4-MDMA-d<sub>5</sub> (hydrochloride) (Item No. 18573) is intended for use as an internal standard for the quantification of 3,4-MDMA (Item Nos. ISO60190 | 13971) by GC- or LCMS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

3,4-MDMA is an analytical reference standard that is structurally categorized as an amphetamine. Also known as 'ecstasy,' it is a euphoric entactogen that is illegal in most countries and is regulated (Schedule I) in the United States.<sup>1</sup> It inhibits transporters for noradrenaline and serotonin (IC<sub>50</sub>s = 6.6 and 34.8 μM, respectively) and blocks the uptake of dopamine (IC<sub>50</sub> = 0.48 μM).<sup>2,3</sup> This neurotoxic compound, unlike typical amphetamines, suppresses locomotor activity in animals at both low and high doses.<sup>4</sup> This product is intended for research and forensic applications.

This product is qualified as a Reference Material that has been manufactured and tested to ISO/IEC 17025 and ISO 17034 international standards.

### References

1. Chakraborty, K., Neogi, R., and Basu, D. Club drugs: Review of the 'rave' with a note of concern for the Indian scenario. *Indian J. Med. Res.* **133**, 594-604 (2011).
2. Cozzi, N.V., Sievert, M.K., Shulgin, A.T., et al. Inhibition of plasma membrane monoamine transporters by β-ketoamphetamines. *Eur. J. Pharmacol.* **381(1)**, 63-69 (1999).
3. Montgomery, T., Buon, C., Eibauer, S., et al. Comparative potencies of 3,4-methylenedioxymethylamphetamine (MDMA) analogues as inhibitors of [<sup>3</sup>H]noradrenaline and [<sup>3</sup>H]5-HT transport in mammalian cell lines. *Br. J. Pharmacol.* **152**, 1121-1130 (2007).
4. Huang, P.K., Aarde, S.M., Angrish, D., et al. Contrasting effects of d-methamphetamine, 3,4-methylenedioxymethylamphetamine, 3,4-methylenedioxypyrovalerone, and 4-methylmethcathinone on wheel activity in rats. *Drug Alcohol Depend.* **126(1-2)**, 168-75 (2012).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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